



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/678,853	10/03/2003	Isamu Uchida	WAKAB76.002AUS	2450

20995 7590 11/28/2006

KNOBBE MARTENS OLSON & BEAR LLP
2040 MAIN STREET
FOURTEENTH FLOOR
IRVINE, CA 92614

EXAMINER

MARTIN, ANGELA J

ART UNIT	PAPER NUMBER
----------	--------------

1745

DATE MAILED: 11/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

C

Office Action Summary	Application No. 10/678,853	Applicant(s) UCHIDA ET AL.	
	Examiner Angela J. Martin	Art Unit 1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/27/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
 4a) Of the above claim(s) 8-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>1/06; 5/05; 1/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Claims 8-17 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 10/27/06.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tani et al., U.S. Pat. No. 6,875,537 B2, in view of Mund, U.S. Pat. Application Pub. 2002/0132146 A1.

Rejection of claims 1-7 drawn to a process for generating power.

Tani et al., teach comprising a process for generating power comprising: a first step of generating power from a fuel cell comprising a fuel electrode, an air electrode and an electrolyte membrane sandwiched therebetween (abstract) wherein the fuel electrode is made of an alloy comprising platinum (col. 2, lines 12-18) and a fuel is a liquid comprising a secondary alcohol (col. 2, lines 64-67), by directly feeding the fuel to the fuel electrode (col. 1, lines 29-31); a second step of contacting the air electrode in

Art Unit: 1745

the fuel cell with an oxidizable material (col. 1, lines 31-33); and a third step of generating power from the fuel cell after the second step (col. 6, lines 19-21). The process as claimed in Claim 1, wherein the fuel electrode is made of an alloy of platinum and at least one metal selected from the group consisting of ruthenium (col. 2, lines 12-18). The process as claimed in Claim 1, wherein the fuel electrode is made of an alloy of platinum and at least one metal selected from the group consisting of ruthenium (col. 2, lines 12-18). The process as claimed in Claim 1, wherein the fuel electrode is made of an alloy comprising platinum and ruthenium (col. 2, lines 12-18). The process as claimed in Claim 1, wherein an atomic composition ratio of platinum to the other elements in the alloy is 28:72 to 45:55 (col. 2, lines 53-54). The process as claimed in Claim 1, wherein the oxidizable material is water or hydrogen (col. 1, lines 29-34).

Mund teaches applying a current from an external electric source between the fuel electrode and the air electrode (0006).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to insert the teachings of Mund into the teachings of Tani et al., because Mund teaches that applying a current from a battery it is a "simple option for cold starting a fuel cell". Although the prior art of record does not disclose further comprising a step of repeating the second step and the third step, one of ordinary skill would repeat the steps of applying oxidant to the air electrode and applying current in order to continue generating power.

Art Unit: 1745

4. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uchida et al., JP 2003-217642.

Uchida et al., teach comprising a process for generating power comprising: a first step of generating power from a fuel cell comprising a fuel electrode, an air electrode and an electrolyte membrane sandwiched therebetween (0004) wherein the fuel electrode is made of an alloy comprising platinum (0004) and a fuel is a liquid comprising a secondary alcohol (0004), by directly feeding the fuel to the fuel electrode (0004); a second step of contacting the air electrode in the fuel cell with an oxidizable material (0004); and a third step of generating power from the fuel cell after the second step (0030). The process as claimed in Claim 1, wherein the fuel electrode is made of an alloy of platinum and at least one metal selected from the group consisting of ruthenium (0015). The process as claimed in Claim 1, wherein the fuel electrode is made of an alloy of platinum and at least one metal selected from the group consisting of ruthenium (0015). The process as claimed in Claim 1, wherein the fuel electrode is made of an alloy comprising platinum and ruthenium (0015). The process as claimed in Claim 1, wherein an atomic composition ratio of platinum to the other elements in the alloy is 65:35 to 10/90 (0015). The process as claimed in Claim 1, wherein the oxidizable material is water or hydrogen (0030).

Mund teaches applying a current from an external electric source between the fuel electrode and the air electrode (0006).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to insert the teachings of Mund into the teachings of Uchida et al.,

Art Unit: 1745

because Mund teaches that applying a current from a battery it is a "simple option for cold starting a fuel cell". Although the prior art of record does not disclose further comprising a step of repeating the second step and the third step, one of ordinary skill would repeat the steps of applying oxidant to the air electrode and applying current in order to continue generating power.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela J. Martin whose telephone number is 571-272-1288. The examiner can normally be reached on Monday-Friday from 9:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1745

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


AJM